REMARKS

I. Introduction

Applicants appreciate the allowance of an interview with the Examiner in order to discuss the April 11, 2006 Office Action regarding the above mentioned application.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art.

II. The Rejection Of Claims 1-2 And 6- 9 Under 35 U.S.C. § 102

Claims 1-2 and 6-9 were rejected under 35 U.S.C. § 102(e) as being anticipated by Petersen et al. (U.S. 6,682,649). Applicants respectfully submit that Petersen fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, claim 1 discloses, in-part, a method for measuring activity signals of a biological sample using a porous insulating substrate provided with a measurement electrode, the measurement electrode being arranged on a front surface of the porous insulating substrate, the method comprising the steps of injecting a target liquid containing the biological sample into a measurement chamber; trapping the biological sample onto the measurement electrode provided on the front surface of the porous insulating substrate by conveying the target liquid from the measurement chamber and then passing the target liquid through the porous insulating substrate from the front surface to a back surface thereof to cause the biological sample to be adsorbed to the measurement electrode; and measuring activity signals of the biological sample through the measurement electrode.

In contrast to the claimed invention, Petersen discloses that the measurement electrodes 16 are provided on the back surface of the substrate 12 (see, Fig. 4A). Therefore, Petersen fails to disclose that the measurement electrode is arranged on the front surface of the porous insulating substrate and that the biological sample is adsorbed to the measurement electrode. This alone is sufficient to distinguish the present invention over the cited prior art.

The Examiner alleges that Fig. 3 of Peterson discloses that the biological sample comes into contact with the AgCl layer of the electrode, thereby teaching that the measurement electrode is on the front surface of the substrate. However, the embodiment disclosed in Fig. 3 fails to teach or suggest that the target liquid is conveyed from the measurement chamber and then passed through the porous insulating substrate from the front surface to a back surface thereof. As the Examiner admits on page 4 of the Office Action, the cell (i.e., biological sample) forms a seal ***around*** the measuring electrode. ***Thus, it does not pass through the substrate.*** In fact, it is impossible for the target liquid to pass through the substrate disclosed in Fig. 3, as there is no through hole to pass through, nor is there a cavity or any such area for the target liquid to pass through to. Thus, even if the embodiment disclosed in Fig. 3 does show that the measurement electrode is on the front surface of the substrate, it still does not disclose the invention described in claim 1 of the present invention because it fails to teach or suggest that the target liquid is passed through the porous insulating substrate from the front surface to a back surface thereof. If the target liquid did pass through the substrate, the measurement electrode would not be able to measure the biological activity of the sample because then there would not be a cell with which to form a seal around the measuring electrode. In other words, the invention disclosed in Petersen would not work if operated in the way the present invention is operated.

Moreover, the embodiment of Fig. 3 ***cannot*** be combined with the embodiment of Fig. 4 because the measurement electrode is on the front surface of the substrate in Fig. 3 and on the back surface of the substrate in Fig. 4 and because there is no through hole in Fig. 3. In addition, even if one could combine the embodiment of Fig. 3 with Fig. 4, the combination would still not anticipate the present invention because neither embodiment discloses that the target liquid is passed through the porous insulating substrate from the front surface to a back surface thereof. Accordingly, Peterson fails to disclose claim 1 of the present invention, and any claims dependent thereon.

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, Petersen et al. does not disclose a method for measuring activity signals of a biological sample using a porous insulating substrate provided with a measurement electrode, the measurement electrode being arranged on a front surface of the porous insulating substrate, the method comprising the steps of injecting a target liquid containing the biological sample into a measurement chamber; trapping the biological sample onto the measurement electrode provided on the front surface of the porous insulating substrate by conveying the target liquid from the measurement chamber and then passing the target liquid through the porous insulating substrate from the front surface to a back surface thereof to cause the biological sample to be adsorbed to the measurement electrode, it is clear that Petersen et al. does not anticipate claim 1 or any claim dependent thereon.

III. The Rejection Of Claims 1-12 Under 35 U.S.C. § 103

Claims 1-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Petersen et al. (U.S. 6,682,649) in view of Owen et al. (WO 99/663290). Applicants respectfully traverse this rejection for at least the following reasons.

The arguments presented over Petersen against the § 102 rejections presented above apply equally to the § 103 rejections. Moreover, Owen does not cure the deficiencies of Peterson noted above, nor is it relied upon as doing so. As such, Applicants submit that Petersen and Owen fail to teach or suggest claim 1 of the present invention.

Thus, in order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA1974). At a minimum, as both Petersen et al. and Owen et al. fail to teach or suggest the limitations recited above, it is submitted that Petersen et al. and Owen et al., alone or in combination, do not render claim 1 obvious. Accordingly, it is respectfully requested that the § 103 rejection of claim 1, and any pending claims dependent thereon be withdrawn.

IV. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

V. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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